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10/536,664

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John David Jenkinson

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NIKOLAI & MERSEREAU, P.A.
900 SECOND AVENUE SOUTH
SUITE 820
MINNEAPOLIS, MN 55402

EXAMINER

SHIN, DANA H

ART UNIT

PAPER NUMBER

1635

MAIL DATE

DELIVERY MODE

08/12/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/536,664 | Applicant(s) JENKINSON ET AL. | |
| | Examiner DANA SHIN | Art Unit 1635 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 48-78 is/are pending in the application.
- 4a) Of the above claim(s) 58, 59 and 72-76 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 48-57, 60-71, 77 and 78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Application/Amendment/Claims

This Office action is in response to the communications filed on March 16, 2009.

Currently, claims 48-78 are pending. Claims 58-59 and 72-76 have been withdrawn from further consideration. Accordingly, claims 48-57, 60-71, and 77-78 are under examination on the merits in the instant case.

The following rejections are either newly applied or are reiterated and are the only rejections and/or objections presently applied to the instant application.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments and Amendments

Withdrawn Rejections

Any rejections not repeated in this Office action are hereby withdrawn.

Maintained Rejections

Claim Rejections - 35 USC § 112

Claims 48-57, 60-71, and 77-78 remain rejected under 35 U.S.C. 112, first paragraph as failing to comply with the enablement requirement for the reasons of record as set forth in the Office action mailed on September 12, 2008 and for the reasons stated below.

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Applicant's arguments filed on March 16, 2009 have been fully considered but they are not persuasive. Applicant argues that the instant specification provides adequate guidance for one of ordinary skill in the art to practice the entire scope of the claimed methods that embrace *in vivo* therapeutic treatment methods, especially in light of the "success achieved *in vitro* with the high level of ordinary skill in the art". However, applicant has failed to particularly point out where in the instant specification such alleged "high level of ordinary skill in the art" for *in vitro* method of promoting apoptosis in a cell is directly and positively correlated with the embraced *in vivo* therapeutic methods such as cancer therapeutic methods as contemplated by the inventors. See claim 78, for example, which is specifically directed to a method of treating cancer in a "patient" by promoting apoptosis. As stated in the last Office action, the instant specification merely provides prophetic and generic statements with regard to the *in vivo* therapeutic methods claimed and embraced by the claims under examination. Furthermore, there is not even a single *in vitro* working example wherein all of the claimed method steps and materials are implemented with a resultant effect of promoted apoptosis. Everything disclosed in the specification including "Examples" is entirely prophetic. Hence, examiner does not understand how applicant is able to contend that there was a high level of skill with regard to the *in vitro* aspect of the claimed methods, let alone the *in vitro-in vivo* correlation that is not demonstrated in the instant specification. Even if there were *in vitro* working examples that overlap with the claimed methods, the instant specification does not fully satisfy the enablement requirement set forth in the first paragraph of 35 U.S.C. 112, because the prevailing opinion in the nucleic acid-based therapeutics was such that *in vivo* activity of a nucleic acid-based compound is unpredictable to the extent that there is a "lack of *in vivo/in vitro* correlation" as evidenced by the reference of

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Patil et al. published about three years after the earliest filing date sought in the instant application. Since applicant has not provided any persuasive arguments, let alone objective evidence showing predictable, positive *in vitro-in vivo* correlation for the claimed molecule, this rejection is maintained.

Claim Rejections - 35 USC § 102

Claims 48, 51-54, 62-64, and 67-68 remain rejected under 35 U.S.C. 102(a) as being anticipated by Lewis et al. for the reasons of record as set forth in the Office action mailed on September 12, 2008 and for the reasons stated below.

Applicant's arguments filed on March 16, 2009 have been fully considered but they are not persuasive. Applicant argues that the claims are not anticipated by Lewis et al. because the teachings of Lewis et al. do not enable or suggest how an anti-Bcl2 antisense PNA conjugate is delivered, thereby failing to teach the claimed invention. Contrary to applicant's argument, Lewis et al. actually synthesized an anti-bcl-2 antisense PNA fused with a membrane-permeating polypeptide for intracellular delivery and showed the specific target bcl-2 mRNA binding activity of the anti-bcl-2 antisense PNA fused with the polypeptide. Further, Lewis et al. actually showed cellular uptake of the anti-bcl-2 antisense PNA fused with the polypeptide in Raji cells that express high levels of bcl-2 mRNA. See page 1178. Hence, Lewis et al. not only suggest the delivery of the antisense PNA conjugate but they also enable the claimed *in vitro* methods that require "introducing into the cell a molecule". Accordingly, this rejection is maintained.

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Claims 48-50, 52-53, 55-56, 62-63, and 67-68 remain rejected under 35 U.S.C. 102(e) as being anticipated by Buluwela et al. for the reasons of record as set forth in the Office action mailed on September 12, 2008 and for the reasons stated below.

Applicant's arguments filed on March 16, 2009 have been fully considered but they are not persuasive. Applicant alleges that Buluwela et al. broadly teach an approach similar to that of the present invention but do not teach or suggest "other claim limitations". However, applicant has failed to particularly point out which "other claim limitations" are not taught or suggested by Buluwela et al., thereby preventing examiner from properly addressing this argument. Since applicant has failed to provide persuasive arguments, this rejection is maintained.

Claims 48-56, 59, 62-63, and 67-68 remain rejected under 35 U.S.C. 102(e) as being anticipated by Hart et al. for the reasons of record as set forth in the Office action mailed on September 12, 2008 and for the reasons stated below.

Applicant's arguments filed on March 16, 2009 have been fully considered but they are not persuasive. Applicant states that the Hart et al. reference does not anticipate the claims and that further investigation to "determine whether Hart et al is of good date to be used as a reference" will be made. The statements do not constitute a proper "argument" addressing the rejection because applicant has failed to provide reasons why Hart et al. do not anticipate claims and because applicant has failed to show why the Hart et al. reference disqualifies as prior art. Hence, this rejection is maintained.

Claim Rejections - 35 USC § 103

Claims 48-57, 60-65, and 67-68 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Wolffe et al., Reed and Li et al. for the reasons of record as set forth in the Office action mailed on September 12, 2008 and for the reasons stated below.

Applicant's arguments filed on March 16, 2009 have been fully considered but they are not persuasive. Applicant states that the combination of the references does not "lead one to any of the present claims absent a clear inventive step." However, applicant has not provided any reasons or evidence in support of the statement to show why or how the combination of the references does not lead one of ordinary skill in the art to the claimed methods, nor has applicant properly identified what "clear inventive step" is missing from the combination of the references. Further, applicant merely asserts that one would not have modified the teachings of Wolffe et al. without providing any supportive reasons and/or evidence. As stated in the last Office action, see pages 12-14, one of ordinary skill in the art would have had a reasonable expectation of success in combining the known steps and materials disclosed in the prior art references and therefore would have arrived at the claimed invention. Note that the arguments of counsel cannot take the place of evidence in the record. See MPEP 2145: "An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness." Also See Ex parte Webb, 30 USPQ2d 1064, 1067-68 (Bd. Pat. App. & Int.1993): "it is incumbent upon applicant to come forth with countervailing evidence to rebut the rejection made by the examiner." Since applicant has not properly addressed the instant rejection at issue, this rejection is maintained.

Conclusion

No claim is allowed.

This application contains claims 58-59 and 72-76 drawn to inventions nonelected with traverse in the reply filed on June 27, 2008. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANA SHIN whose telephone number is (571)272-8008. The examiner can normally be reached on Monday through Friday, 7am-3:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James (Doug) Schultz can be reached on 571-272-0763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dana Shin
Examiner
Art Unit 1635

/J. E. Angell/
Primary Examiner, Art Unit 1635